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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: South Riverbank Cover System
E.I. du Pont, Newport Superfund Site

DATE: 6-6-96

FROM: Randy Sturgeon
Remedial Project Manager
General Remedial Section

Randy Sturgeon

TO: See Addressees Below

As you know, the New Castle County Force Main runs through the south landfill. Completely containing the waste material within the slurry wall as currently called for in the ROD presents constructibility problems where the slurry wall would cross the force main and would run the risk of causing a failure (either during construction or in the future because of impacts caused by the construction). 80% of New Castle County's sewage runs through this force main. A failure would not only cause major environmental impacts (raw sewage released into the river along with landfill waste) but would cause major disruptions to most residents of New Castle County.

DuPont has proposed to construct the south landfill slurry wall in such a way as to keep the force main outside of the containment system. This alignment will leave approximately 5% of the waste in the south landfill outside of the slurry wall. This waste is located along the Christina River generally covered by soil but with little to no cover in some places. DuPont submitted an addendum (4/8/96) to its slurry wall alignment proposal describing several alternatives for addressing the waste that will not be contained in the slurry wall and will not be treated. I have discussed this issue with several of you and have received comments from DNREC. I believe the best alternative is the soil cover with a drainage layer. This would severely restrict infiltration of rain water yet would allow the trees to remain. The only modification that I think should be made to this alternative is to put a geomembrane along the riverbank in the intertidal zone to limit any leaching caused by the tidal fluctuations of the river. Currently, the sediments along the south riverbank are clean. The combination of the slurry wall and the capping or covering of all the waste will cause a substantial reduction to the south landfill's contribution to surface water contamination in the river caused by discharging ground water to the river itself and to the south wetlands which drains to the river.

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This remedy should also be implemented along the portion of the riverbank near the James Street Bridge where the waste is right on the riverbank. A minimal amount of fill may need to be placed on the bank in this area to provide a better base for the geomembrane. Although the soil cover would be the thinnest in this area, other containment options (either excavating the waste in this area or installing sheet pile) would involve more disturbance of the riverbank or encroachment into the river.

The modified remedy would still meet ARARs and be protective of the environment. Since the waste can be adequately contained with a soil cover and drainage layer and protected from erosion with rip rap along the riverbank, the reduction in volume of treated wastes and the slight increase in mobility of contaminants caused by not isolating all of the waste in the slurry wall is more than offset by the reduced risk of a major catastrophe and the ecological benefit of allowing trees to remain along the riverbank (which would not have remained if the slurry wall was installed near the riverbank).

If you have any comments and/or objections, please submit them to me by 6/13/96. Otherwise, EPA will approve the above alternative on 6/14/96 (DuPont submitted this alternative on 4/8/96). If you have any questions, please call me at 215-566-3227.

cc: Anne Hiller, DNREC
Chris Guy, DuPont
Barbara Okorn, EPA
Peter Knight, NOAA
Ramon Benitez, USACE